

## **REMARKS**

Claims 9-32 are currently pending. Reconsideration of the application in view of the current claims is respectfully requested and further in view of the following Remarks.

### **I. INFORMATION DISCLOSURE STATEMENT**

Applicant acknowledges, with appreciation, the Examiner's indication that the references submitted in the Information Disclosure Statement filed June 12, 2007, have been considered. Applicant looks forward to an indication that the references cited in the Information Disclosure Statement filed September 24, 2007, have been considered.

### **II. CLAIM REJECTION UNDER 35 U.S.C. § 103(a)**

During patent examination the PTO bears the initial burden of supporting a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, it is necessary for the Examiner to present evidence in prior art, or in the form of generally available knowledge, that one having ordinary skill in the art would have been led from the relevant teachings of the applied references to arrive at the claimed invention. This can be shown by showing some teaching, suggestion, incentive or inference to combine the references or showing that there is a design need or market pressure to solve a problem and there are a finite number of identified or predictable solutions a person of ordinary skill in the art has good reason to pursue and that the known objects are within his or her technical grasp. Mere identification in the prior art of each element is insufficient to defeat patentability of the combined subject matter. Further, Applicant's explanation of how the invention works does not render obvious that which is otherwise unobvious. Finally, there must be a reasonable expectation of success and the references must teach or suggest all of the claim limitations.

#### **A. Claims 9 and 11-13 have been rejected under 35 U.S.C. § 103 over Votruba in view of Bejjani**

The Examiner rejected claims 9 and 11-13 under 35 U.S.C. § 103(a) as being unpatentable over Votruba '856 in view of Bejjani '042. With respect to independent claim 9, the Examiner asserts that:

Votruba '859 teaches a passive motion device (Figure 9) for continuously moving a joint (Col. 6, Line 24-32) which comprises a horizontal platform base (Figure 9, element 29) and a horizontal passive motion platform (Figure 9,

element 6 and 25) composed of a horizontal status platform (Figure 9, Element 6 & 25) composed of a horizontal static platform (Figure 9, Element 25) which is rigidly connected to the upper lateral surface of the platform base (Figure 9, Element 29) and a horizontal laterally moveable platform (Figure 9, Element 6) which is flexibly connected to the static platform (Figure 9, Element 25), in which the static platform (Figure 9, Element 25) is adjacent to the laterally moveable platform (Figure 9, Element 6) which together both form the passive motion platform (Figure 9, Element 6 & 25), in which the movement of the laterally moveable platform (Figure 9, Element 6) continuously is driven during use by a motor (Figure 1, Element 9) attached to the platform base (Figure 9, Element 29) where movement of the laterally moveable platform (Figure 9, Element 6) is achieved by means of a control arm (Figure 9, Element 19) that operably connects the laterally moveable platform (Figure 9, Element 6) to the motor (Figure 1, Element 9).

See Office Action dated October 9, 2007, pp. 4.

Applicant respectfully traverses this rejection. According to claim 9, the motor of the passive motion device drives ***continuous motion of the laterally movable platform during sampling of images and continuous motion of the joint during sampling of images.*** Neither Votruba '859 nor Bejjani '042 alone or in combination disclose a passive motion device having a motor that drives continuous motion of the laterally movable platform and continuous motion of the joint during sampling of images of the joint.

Rather, Votruba '859 discloses a device that moves a joint into a "multiplicity of ***fixed positions*** of the joint ***at which . . . imaging data are collected.***" Votruba '859, Col. 6, lines 28-30 (emphasis added). The programmable unit of Votruba '859 is capable of "automatically ***sequencing*** the movement of a particular joint from ***an original position to a new position, followed by a[n] . . . imaging study at the new position.***" *Id.* Col. 6, lines 33-37 (emphasis added). In Votruba '859, thus, it is only ***after*** "movement of the joint to ***a new position*** is completed" that an image is created "***at the new position of the movable joint.***" *Id.* Col 6, lines 48-54 (emphasis added). The Votruba '859 apparatus can be "broadly utilized to automatically ***index*** the motion of several of the movable joints of a patient." *Id.* Col. 7, lines 15-21 (emphasis added). Nothing in Votruba '859 indicates the apparatus of Votruba '859 can drive continuous motion of a laterally moveable platform during sampling of images. Moreover, nothing in Votruba '859 indicates the apparatus of Votruba '859 can drive continuous motion of the joint during sampling of images. Votruba '859 thus fails to disclose a device having a motor that drives continuous motion of the

laterally movable platform *during* sampling of images and continuous motion of the joint *during* sampling of images.

Furthermore, Bejjani '042 fails to disclose a passive motion device altogether. Thus, Bejjani '042 does not disclose a device having a motor that drives continuous motion of the laterally movable platform *during* sampling of images and continuous motion of the joint *during* sampling of images.

Nevertheless, in an effort to advance the application to issuance, Applicant has amended independent claim 9 to clarify that it is directed to a device that continuously moves the laterally movable platform during sampling of images which, thereby, continuously moves the joint during sampling of images.

Nothing in Votruba '859 and/or Bejjani '042 would lead a person of skill in the art to an apparatus for the measurement of skeletal joint motion which includes a means for real time digital sampling of images of the moving joints, much less to an apparatus for measurement of skeletal joint motion that includes continuously moving a joint and real time digital sampling of images of the continuously moving joint. Neither Votruba '859 nor Bejjani '042 provide for continuous controlled joint motion with real time imaging.

Additionally, both Votruba '859 and Bejjani '042 fail to disclose a processing system which records time code and data from the passive motion platform. Although Bejjani '042 does teach for recording of time codes (Col. 5, lines 4-8), this data does not come from the passive motion device. Rather, this data comes from the images themselves. Votruba '859 does not teach the recording of any data whatsoever. Therefore a processing system which comprises a computer incorporating a means for recording time code and data from the passive motion platform is not taught by either Votruba '859 or Bejjani '042.

Nothing in Votruba '859 and/or Bejjani '042 would lead a person of skill in the art to an apparatus including a processing system which records time code and data from a passive motion platform. Neither Votruba '859 nor Bejjani '042 provide for a processing system which records time code and data from a passive motion platform.

To facilitate the Examiner's appreciation of the differences between a few of the elements of the claimed invention and the prior art, Applicant summarizes the information as follows:

ELEMENT	BREEN	VOTRUBA '859	BEJJANI '042
Passive motion device for continuously moving a joint	YES	NO	NO
Imaging device	YES	YES	YES
Real time digital sampling of moving images	YES	NO	YES
Recording time code and data from the passive motion platform	YES	NO	NO
Storage of images at high resolution	YES	NO	YES
Recognizing templates and tracking automatically using cross-correlation functions	YES	NO	YES

Accordingly, Applicant requests that the Examiner withdraw the rejection of claim 9 over Votruba '859 in view of Bejjani '042 under 35 U.S.C. § 103(a). Claims 11-13 depend directly or indirectly from claim 9 and include the limitations thereof. Accordingly, for the same reasons Applicant requests that the rejection of claims 11-13 be withdrawn as well.

**B. Claims 10 and 14-32 have been rejected under 35 U.S.C. § 103 over Votruba in view of Bejjani and further in view of Bell**

The Examiner rejected claims 10 and 14-32 under 35 U.S.C. § 103(a) as being unpatentable over Votruba '859 in view of Bejjani '042 and further in view of Bell '859. Claims 10 and 14-32 depend directly or indirectly from independent claim 9. Claims 10 and 14-32 depend directly or indirectly from claim 9 and include the limitations thereof. As discussed above, claim 9 is not obvious over Votruba '859 in view of Bejjani '042. In addition, Bell '859 does not disclose a device having a motor that drives continuous motion of a laterally movable platform during sampling of images and drives continuous motion of the joint during sampling of images. Nor does Bell '859 disclose an apparatus including a processing system which records time code and data from a passive motion platform. In view of the fact that claims 10 and 14-32 depend from an allowable claim, Applicants request that the rejection of claims 10 and 14-32 be withdrawn.

**C. Claims 21, 23, 30 and 32 have been rejected under 35 U.S.C. § 103 over Votruba in view of Bejjani, in view of Bell, and further in view of McGregor**

The Examiner rejected claims 21, 23, 30, & 32 under 35 U.S.C. § 103(a) as being unpatentable over Votruba '859 in view of Bejjani '042, in view of Bell '859, and further in view of McGregor '060. Claims 21, 23, 30, & 32 depend directly or indirectly from independent claim 9. As discussed above, claim 9 is not obvious over Votruba '859 in view of Bejjani '042. Also as

discussed above, Bell '859 does not disclose a device having a motor that drives continuous motion of a laterally movable platform during sampling of images and continuous motion of the joint during sampling of images. Nor does Bell '859 disclose an apparatus including a processing system which records time code and data from a passive motion platform. Furthermore, McGregor '060 does not disclose a device having a motor that drives continuous motion of a laterally movable platform during sampling of images and continuous motion of the joint during sampling of images. Nor does McGregor '060 disclose an apparatus including a processing system which records time code and data from a passive motion platform. In view of the fact that claims 21, 23, 30, & 32 depend from an allowable claim, Applicants request that the rejection of claims 21, 23, 30, & 32 be withdrawn.

### CONCLUSION

For the foregoing reasons, the Examiner is requested to allow claims 9-32 and advance the application to issuance.

### FEE AUTHORIZATION

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. **23-2415** (Docket No.: 34655-703.831).

Respectfully submitted,



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